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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,200	03/04/2005	Mitsuo Tanaka	Q83917	6449

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EXAMINER	
VO, ANH T N	

ART UNIT	PAPER NUMBER
2861	

NOTIFICATION DATE	DELIVERY MODE
01/08/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com
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Office Action Summary	Application No.	Applicant(s)	
	10/510,200	TANAKA, MITSUO	
	Examiner	Art Unit	
	Anh T.N. Vo	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

FINAL REJECTION

CLAIM REJECTIONS

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-16 remain rejected under 35 USC 103 (a) as being unpatentable over Yanagida (JP Pat. 2002-052738) over Obana et al (US 6,247,784).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Yanagida discloses in Figures 1-12 an ink jet printer comprising:

- a liquid container (51) having a memory element (511), which stores information about retained liquid (Fig. 1) and a first communication section (1212);
- a carriage (121) mounting said liquid container (51) and having a liquid injection head (1211) which injects said liquid (Fig. 1);
- moving means (not shown) which moves said carriage (121) (Fig. 1);
- a replacement liquid container (61) for replacing the liquid container (51) mounted on said carriage (121), the replacement liquid container (61) having a memory element (611) which stores information about retained liquid;

- acquisition means (113) that acquires information stored in said memory element (611) of the replacement liquid container (61);
- decision means (111) which determines whether or not to replace said liquid container (51) mounted on said carriage (121) with said replacement liquid container (61), based on the information acquired by said acquisition means (113);
- control means (112, 122) which controls said moving means in such a way as to move said carriage (121) to a replacement position from a standby position (close by the element 122) in the case where said decision means (111) has decided that replacement with said replacement liquid container (61) should be done;
- display control means (114) for displaying on a display device (131) information stored in the memory element (611) in said replacement liquid container (61), acquired by said acquisition means (113) (Fig. 1); and
- wherein said determining means (111) determines that the liquid container should be replaced with said replacement liquid container in the case where the remaining amount of the liquid in the replacement liquid container is larger than a remaining amount of the liquid in the liquid container which is mounted on said carriage and retains a liquid of the same color as that of the liquid in said replacement liquid container. Noted that the cartridge (61) has the same type as the cartridge (51) so that they have the same color.

However, Yanagida does not discloses that the control means section controls said moving means mechanism in such a way as to move said carriage to a replacement position from a standby position in the case where said decision determining means section has determined that replacement with said replacement liquid container should be performed, and an operation means portion is operated to drive said moving means mechanism arbitrarily to move said carriage to said replacement position and said standby position regardless of a decision determination.

Nevertheless, Obana et al suggests in Figures 2-6 a printing device comprising an information acquisition device (64) being provided at a portion of the cover (61) and a

decision determining means section (24, Figure 3) which determines whether or not to replace said liquid container mounted on said carriage with said replacement liquid container, based on the information and a control means section which controls said moving means mechanism (32) in such a way as to move said carriage to a replacement position from a standby position in the case where said decision determining means section has determined that replacement with said replacement liquid container should be performed, lines 45-57, column 9, for easily replacing the ink cartridge and prohibiting transition to a replacement mode at a time when a temperature is high, see lines 31-46, column 2. Wherein an operation means portion (61 66) is operated to drive said moving means mechanism arbitrarily to move said carriage to said replacement position and said standby position regardless of a decision determination by said decision determining means section.

It would have been obvious to a person having skill in the art at the time the invention was made to incorporate the suggestion of Obana et al into the printing device of Yanagida for the purpose of for easily replacing the ink cartridge and prohibiting transition to a replacement mode at a time when a temperature is high.

With regard to claim 8, although the memory (511) and the information acquisition device (1212) as shown in Figure 1 of Yanagida are placed at the side surface of the ink cartridge; however, a skilled artisan realizes that they can be re-positioned on the top of the cartridge since they are external components of the cartridge, and repositioning these components for accommodating with the physical size and shape of a predetermined carriage is considered to be a matter of a mechanical design expedient for an engineer. Lacking of showing any criticality, placing the components (511, 1212) on the top of the cartridge of Yamnagida as claimed would have been obvious at the time of the invention.

With regard to claim 9, although Yanagida does not show a plurality of ink cartridges; however, employing a plurality ink containers for providing color printing is well known and would have obvious at the time of the invention.

Claim 5 remain rejected under 35 USC 103 (a) as being unpatentable over Yanagida (JP Pat. 2002-052738) in view of Obana et al (US 6,247,784) and further in view Tanaka et al. (JP Pat. 10-286976).

Yanagida in view of Obana et al discloses the basic features of the claimed invention was stated above but does not disclose operation means which is operated to drive said moving means arbitrarily to move said carriage to said replacement position and said standby position regardless of a decision by said decision means.

Tanaka et al. disclose in Figures 1-2 and 5 an ink jet recorder comprising operation means (11) which is operated to drive said moving means (8, 12a, 12b, 13) arbitrarily to move said carriage (6) to said replacement position and said standby position regardless of a decision by said decision means (101).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Tanaka et al. into the device of Yanagida for the purpose of selectively exchanging an ink tank from opening section of a cover of the ink jet recorder.

Response to Applicant's Arguments

The applicant argues that Obana merely teaches that the warning message is displayed when the ink jet cartridge 5 needs to be replaced, but does not teach or even remotely suggest that the carriage is moved to a replacement position in the case where said determining section has determined that replacement with said replacement liquid container should be performed, as recited in claim 1. Consequently, Obana does not teach, and cannot possibly suggest, the feature of a control section which controls a moving mechanism in such a way as to move said carriage to a replacement position in the case where said determining section has determined that replacement with said replacement liquid container should be performed, as claimed. The arguments are not persuasive because Figures 3 and of Oban clearly shows that the determination

unit is the CPU for determining the replacement of the ink cartridge and directs the cartridge to move to the replacement position. Thus, the recitation "control section . . . should be performed" as recited in claim 1 remain readable on the Obana reference.

The applicant argues that in contrast with Obana, when the liquid container needs to be replaced, the carriage of the present invention is moved to the replacement position without requiring any further action on the part of the user. Accordingly, the burden imposed on the user is reduced. The argument is not persuasive because there is nothing recited in claim 1 about "replacement without requiring any further action on the part of the user".

The applicant argues thatYanagida merely discloses a contact (141, 1213) provided in a cartridge holder and an IC memory (611, 511) provided on a cartridge. However, Yanagida teaches that the contact (141, 1213) mechanically contacts the IC memory (611, 511) to obtain the information from the IC memory (611, 511). As a result, Yanagida does not teach, and cannot possibly suggest, the feature of an information acquisition device having a second communication section communicatable in a non-contact manner, as recited in claim 7. The arguments are not persuasive. Figure 5 of Obana clearly shows that the sensor (64) is provided on a cover (61) in a non-contact manner for detecting the opening and closing of the cover 61. Thus, the modified printing device of Yanagida in view of Oban would include the cover sensor.

CONCLUSION

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Monday to Friday from 9:00 A.M.to 5:30 P.M.. The fax number of this Group 2861 is (571) 273-8300

ANH T.M. VO
PRIMARY EXAMINER
December 29, 2007